

Permit No. MI0059945

FACT SHEET

PERMITTEE/FACILITY NAME: Aquila Resources Inc. / Back Forty Project

COUNTY: Menominee

DESCRIPTION OF PROPOSED WASTEWATER TREATMENT FACILITIES

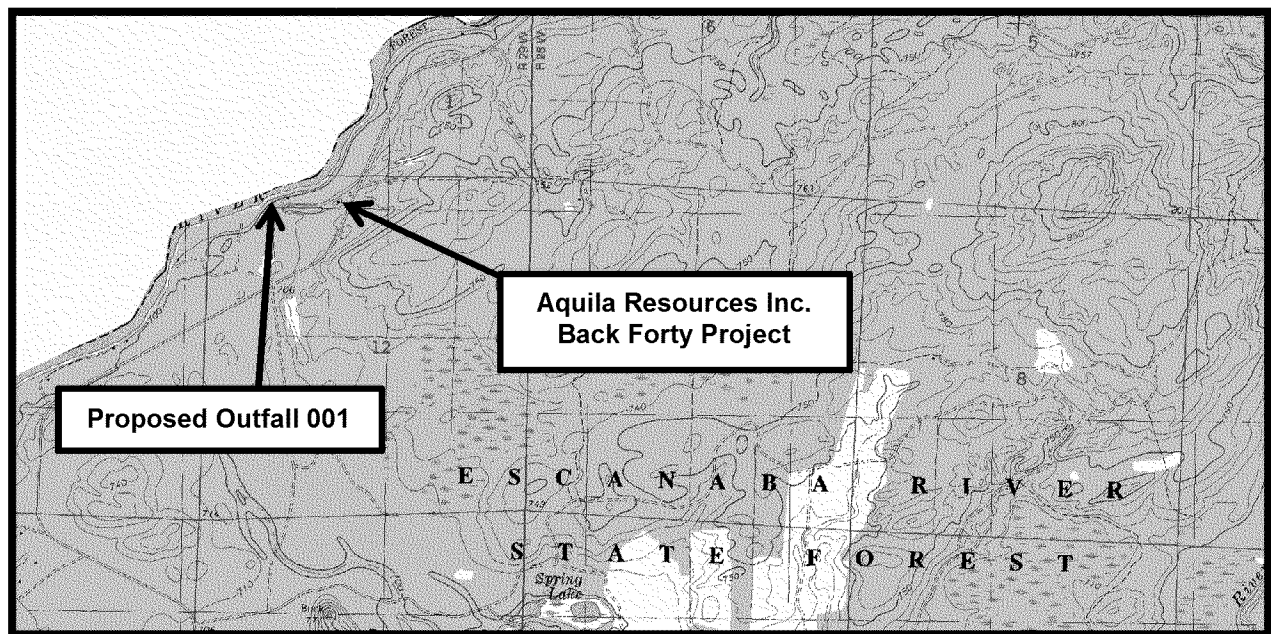
All water generated including storm water runoff will be collected in two lined contact water basins. Some quantities of water will be withdrawn, used, and returned to the contact water basins. Excess amount of water from the contact water basins will be treated and discharged through outfall 001 to the Menominee River. Water will be pumped from the contact water basins to the treatment plant and treated in two mixed reactor tanks in series where sodium hydroxide or lime, coagulants, metal chelating polymers, flocculants, and sodium hypochlorite will be added. The water from the reactor tanks will flow to a clarifier and will then be followed by a filtration process with a membrane system. The pH of the effluent will be adjusted by adding sulfuric acid or sodium hydroxide prior to discharge. The solids generated by treatment will be thickened with a gravity thickener and the decant will be returned to the mixed tank reactors. The thickened solids will be processed by a plate and frame filter press and the resulting solids will be transported and disposed offsite.

Prior to returning to the contact water basins, pretreatment for the leachate from the oxide tailings and waste rock management facility may be added. Treatment steps similar to the treatment plant are proposed for the pretreatment.

MAP OF DISCHARGE LOCATION

Facility Coordinates

Latitude 45.45068475, Longitude -87.8335155



RECEIVING WATER

The Menominee River is protected for agricultural uses, navigation, industrial water supply, public water supply in areas with designated public water supply intakes, warm-water fish, other indigenous aquatic life and wildlife, partial body contact recreation, total body contact recreation (May through October), and fish consumption.

The receiving stream flow used to develop effluent limitations is the 7-day Q10 flow of 940 cfs. This flow is used in accordance with previous agreements with the State of Wisconsin concerning design river flows for facilities that discharge to Michigan/Wisconsin border waters.

MIXING ZONE

For toxic pollutants, the volume of the Menominee River used to ensure that effluent limitations are sufficiently stringent to meet Water Quality Standards is 25 percent of the applicable design flow of the receiving stream.

For other pollutants, the volume of the Menominee River used to ensure that effluent limitations are sufficiently stringent to meet Water Quality Standards is the applicable design flow of the receiving stream.

PROPOSED EFFLUENT QUALITY: (from completed application dated December 8, 2015)

Parameter	Minimum Daily	Maximum Monthly	Maximum 7-Day	Maximum Daily	Units
Antimony	---	---	---	≤ 2,300	ug/l
Arsenic	---	---	---	≤ 680	ug/l
Barium	---	---	---	≤ 2,845	ug/l
Beryllium	---	---	---	≤ 59	ug/l
Boron	---	---	---	≤ 55,000	ug/l
Cadmium	---	---	---	≤ 9.7	ug/l
Chromium ---	---	---	---	≤ 1,259	ug/l
Cobalt	---	---	---	≤ 740	ug/l
Copper	---	---	---	≤ 30	ug/l
Cyanide	---	---	---	≤ 44	ug/l
Fluoride	---	---	---	≤ 3,100	ug/l
Lead	---	---	---	≤ 440	ug/l
Lithium	---	---	---	≤ 1,800	ug/l
Manganese ---	---	---	---	≤ 9,270	ug/l
Mercury	---	---	---	≤ 0.0013	ug/l
Molybdenum ---	---	---	---	≤ 58,000	ug/l
Nickel	---	---	---	≤ 1,038	ug/l
Phosphorus ---	---	---	---	≤ 1,000	ug/l
Selenium	---	---	---	≤ 120	ug/l
Silver	---	---	---	≤ 0.06	ug/l
Zinc	---	---	---	273	ug/l

PROPOSED EFFLUENT LIMITATIONS: (see draft permit)

BASIS FOR PROPOSED EFFLUENT LIMITATIONS: (see Basis for Decision Memo)

ADDITIONAL INFORMATION

The Department proposes that the applicant's Antidegradation Demonstration, based on information required by Subrule (4) of R323.1098, shows that lowering of water quality is necessary to support the identified important social and economic development in the area. This is solely for purposes of satisfying state water quality regulations and is not intended to supplant local requirements, including land use or zoning laws. It is not, and should not be construed as, a finding by the Department that the proposed development meets local requirements or ordinances.

REGISTER OF INTERESTED PERSONS

Any person interested in a particular application, or group of applications, may leave his/her name, address, and telephone number as part of the file for an application. The list of names will be maintained as a means for persons with an interest in an application to contact others with similar interests.

PUBLIC COMMENT

Comments or objections to the draft permit received between _____, and _____, will be considered in the final decision to issue the permit.

The Department will hold a consolidated public hearing on the Aquila Resources Back Forty Project at
INSERT LOCATION & DATE

The Department will also consider comments made at the hearing when making its final determinations on the permit. Further information regarding the draft permit, and procedures for commenting or the public hearing may be obtained by contacting Alvin Lam, Permits Section, Water Resources Division, Department of Environmental Quality, P.O. Box 30458, Lansing, Michigan 48909, telephone: 517-284-5597, e-mail: lama@michigan.gov.